

IN THE CLAIMS

Please cancel claims 1-50, and 66-105 without prejudice.

Please add new claims 106-112 as follows below.

The following listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Pending Claims:

1 1-50. (Cancelled)

1 51. (Original) A data signal propagation in an
2 optical network equipment for increased reliability,
3 comprising:

4 a data signal embodied in a first optical signal on a
5 first optical path in the optical network equipment;

6 the data signal embodied in a second optical signal on
7 a second optical path in the optical network equipment;

8 wherein the first optical signal and the second
9 optical signal are substantially similar; and

10 wherein the first optical path is different from the
11 second optical path.

1 52. (Original) The data signal propagation of
2 claim 51 wherein

3 if the first optical path should fail, the second
4 optical path provides continued data signal propagation in
5 the optical network equipment.

1 53. (Original) The data signal propagation of
2 claim 51 further comprising:

3 the data signal embodied in a third optical signal on
4 a third optical signal path in the optical network
5 equipment;
6 wherein the third optical signal is substantially
7 similar to the first and second optical signals; and
8 wherein the third optical path differs from the first
9 and second optical paths.

1 54. (Original) The data signal propagation of
2 claim 53 wherein
3 if the first and second optical paths should fail, the
4 third optical path provides continued data signal
5 propagation in the optical network equipment.

1 55. (Original) The data signal propagation of
2 claim 53 further comprising:
3 the data signal embodied in a fourth optical signal on
4 a fourth optical signal path in the optical network
5 equipment;
6 wherein the fourth optical signal is substantially
7 similar to the first, second and third optical signals; and
8 wherein the fourth optical path differs from the
9 first, second and third optical paths.

1 56. (Original) The data signal propagation of
2 claim 55 wherein
3 if the first, second and third optical paths should
4 fail, the fourth optical path provides continued data
5 signal propagation in the optical network equipment.

1 57. (Original) The data signal propagation of
2 claim 51 wherein

3 the optical network equipment is an optical bridge, an
4 optical router, an optical cross-connect switch, an optical
5 hub, an optical node, an optical concentrator, or other
6 networking equipment accepting a data signal embodied in an
7 optical signal.

1 58. (Original) A method of increasing reliability
2 in optical network equipment, the method comprising:

3 converting an input optical signal in the optical
4 domain into an electrical signal in the electrical domain;

5 converting the electrical signal in the electrical
6 domain into a first optical signal and a second optical
7 signal in the optical domain, the first and second optical
8 signals being substantially similar;

9 processing the first optical signals and the second
10 optical signal similarly through the optical network
11 equipment to generate a first processed optical signal and
12 a second processed optical signal respectively; and

13 selecting either the first processed optical signal or
14 the second processed optical signal as the output optical
15 signal of the optical network equipment.

1 59. (Original) The method of claim 58 wherein

2 the converting of the input optical signal in the
3 optical domain into the electrical signal in the electrical
4 domain and the converting of the electrical signal in the
5 electrical domain into the first optical signal and the

6 second optical signal in the optical domain are performed
7 substantially at the same time.

1 60. (Original) The method of claim 58 wherein
2 the optical network equipment is an optical cross-
3 connect switch and the processing of the first and second
4 optical signals similarly therein includes routing the
5 first and second optical signals respectively over two
6 differing optical paths in the optical cross-connect
7 switch.

1 61. (Original) The method of claim 58 wherein
2 the selecting selects the first processed optical
3 signal as the output optical signal.

1 62. (Original) The method of claim 61 wherein
2 the second processed optical signal has bit errors.

1 63. (Original) The method of claim 61 wherein
2 the second processed optical signal is unavailable for
3 selection by the selecting as a result of the processing of
4 the second optical signal failing to generate the second
5 processed optical signal.

1 64. (Original) The method of claim 61 wherein
2 the second processed optical signal is unavailable for
3 selection by the selecting as a result of a failed
4 component in the optical network equipment.

1 65. (Original) The method of claim 58 wherein
2 the selecting of either the first processed optical
3 signal or the second processed optical signal includes
4 converting the first processed optical signal in
5 the optical domain into a first processed electrical
6 signal in the electrical domain,
7 converting the second processed optical signal in
8 the optical domain into a second processed electrical
9 signal in the electrical domain,
10 selecting either the first processed electrical
11 signal or the second processed electrical signal as an
12 output electrical signal, and
13 converting the output electrical signal in the
14 electrical domain into the output optical signal in
15 the optical domain.

1 66-105. (Cancelled)

1 106. (New) Data signal propagation in optical
2 network equipment for increased reliability, comprising:
3 a data signal embodied in a first optical signal on a
4 first optical path in the optical network equipment;
5 the data signal embodied in a second optical signal on
6 a second optical path in the optical network equipment;
7 wherein the first optical signal and the second
8 optical signal are substantially similar; and
9 wherein the first optical path is different from the
10 second optical path; and

11 when the first optical path fails, an alarm signal
12 embodied in an electrical signal from the optical network
13 equipment to signal a failure of an optical path.

1 107. (New) The data signal propagation of claim
2 106 wherein

3 if the first optical path should fail,
4 the alarm signal embodied in the electrical signal
5 from the optical network equipment signals a failure of the
6 first optical path, and
7 the second optical path provides continued data signal
8 propagation in the optical network equipment.

1 108. (New) The data signal propagation of claim
2 106 further comprising:

3 the data signal embodied in a third optical signal on
4 a third optical signal path in the optical network
5 equipment;
6 wherein the third optical signal is substantially
7 similar to the first and second optical signals; and
8 wherein the third optical path differs from the first
9 and second optical paths.

1 109. (New) The data signal propagation of claim
2 108 wherein

3 if the first and second optical paths should fail,
4 the alarm signal embodied in the electrical signal
5 from the optical network equipment signals a failure of the
6 first and second optical paths, and

7 the third optical path provides continued data signal
8 propagation in the optical network equipment.

1 110. (New) The data signal propagation of claim
2 108 further comprising:

3 the data signal embodied in a fourth optical signal on
4 a fourth optical signal path in the optical network
5 equipment;

6 wherein the fourth optical signal is substantially
7 similar to the first, second and third optical signals; and

8 wherein the fourth optical path differs from the
9 first, second and third optical paths.

1 111. (New) The data signal propagation of claim
2 110 wherein

3 if the first, second and third optical paths should
4 fail,

5 the alarm signal embodied in the electrical signal
6 from the optical network equipment signals a failure of the
7 first, second and third optical paths, and

8 the fourth optical path provides continued data signal
9 propagation in the optical network equipment.

1 112. (New) The data signal propagation of claim
2 106 wherein

3 the optical network equipment is an optical bridge, an
4 optical router, an optical cross-connect switch, an optical
5 hub, an optical node, an optical concentrator, or other
6 networking equipment accepting a data signal embodied in an
7 optical signal.